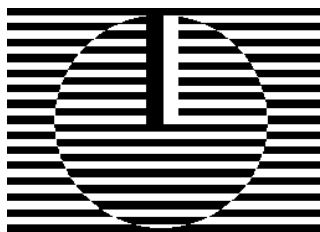


Diode Laser Modul X-Options

X Options allow the user to select the type of adjustments that can be made to a laser system.		
Constant Optical Output Power Mode Control		
X11	Internal Fixed	A 12 turn pot has a higher resolution than a 3/4 turn pot. Both are available internally or externally.
X12	Internal 3/4 Turn Pot	
X13	Internal 12 Turn Pot	
X14	External Fixed	
X15	External 3/4 Turn Pot	
X16	External 12 Turn Pot	
Constant Drive Current Mode Control		
X21	Internal Fixed	A 12 turn pot has a higher resolution than a 3/4 turn pot. Both are available internally or externally.
X22	Internal 3/4 Turn Pot	
X23	Internal 12 Turn Pot	
X24	External Fixed	
X25	External 3/4 Turn Pot	
X26	External 12 Turn Pot	
Temperature Control		
X41	Internal Fixed	A 12 turn pot has a higher resolution than a 3/4 turn pot. Both are available internally or externally.
X42	Internal 3/4 Turn Pot	
X43	Internal 12 Turn Pot	
X44	External Fixed	
X45	External 3/4 Turn Pot	
X46	External 12 Turn Pot	
Frequency Selectable Modulation		
X34	External Set	External user selectable modulation
NOT ALL OPTIONS ARE AVAILABLE IN ALL MODELS AND COMBINATIONS. Please consult with us for compatibility.		

X Options for Adjustment

These options apply to the laser diode power supplies upto 150 mA (LDP201) and 1 Amp (LDP251) diode drive current, but may be compatible with other systems. Please consult for compatibility. For a higher degree of control, we suggest a 12 turn pot. External pots are connected by 25.4mm (12 inch) wires.



Diode Laser Modul X34-Options

These are the frequencies available with Option X34.								
Dividing Ratio	1 MHz Base Frequency							
	1/1	1/10	1/10 ²	1/10 ³	1/10 ⁴	1/10 ⁵	1/10 ⁶	1/10 ⁷
1 : 1	1MHz	100K	10K	1K	100	10	1	0.1
1 : 10	100K	10K	1K	100	10	1	0.1	0.01
1 : 2	500K	50K	5K	500	50	5	0.5	0.05
1 : 3	333.3K	33.3K	3.3K	333.3	33.3	3.33	0.333	0.0333
1 : 4	250K	25K	2.5K	250	25	2.5	0.25	0.025
1 : 5	200K	20K	2K	200	20	2	0.2	0.02
1 : 6	166.6K	16.6K	1.6K	166.6	16.6	1.66	0.166	0.0166
1 : 12	83.3K	8.3K	833.3	83.3	8.3	0.83	0.083	0.0083

X34-Option user programmable Crystal Trigger

Option X34 may be added to any model ending with the letter X (ie. APMX or PPMX) to allow the user to externally select any one of the frequencies listed in the Option X34 specification. It is utilised to externally step the internal crystal's dividing ratio and change the fixed frequency at which the laser modulates. Without Option X34, the modulation frequency for all "X" systems is set at the factory. A fixed frequency for laser modulation must be chosen when a system with number ending in X is ordered. The frequency must be specified at order placement.

The crystal oscillator/ programmable frequency divider provides frequency stable modulation with 0.015% stability. The frequency tolerance is specified to ± 100 ppm. A drift through aging may be assumed to be ± 5 ppm/ year max.

All frequencies generated are derived from a single built-in quartz crystal oscillator and exhibit the same high levels of accuracy and stability as those of the base frequency supplied by the crystal. Other frequencies are available upon request.